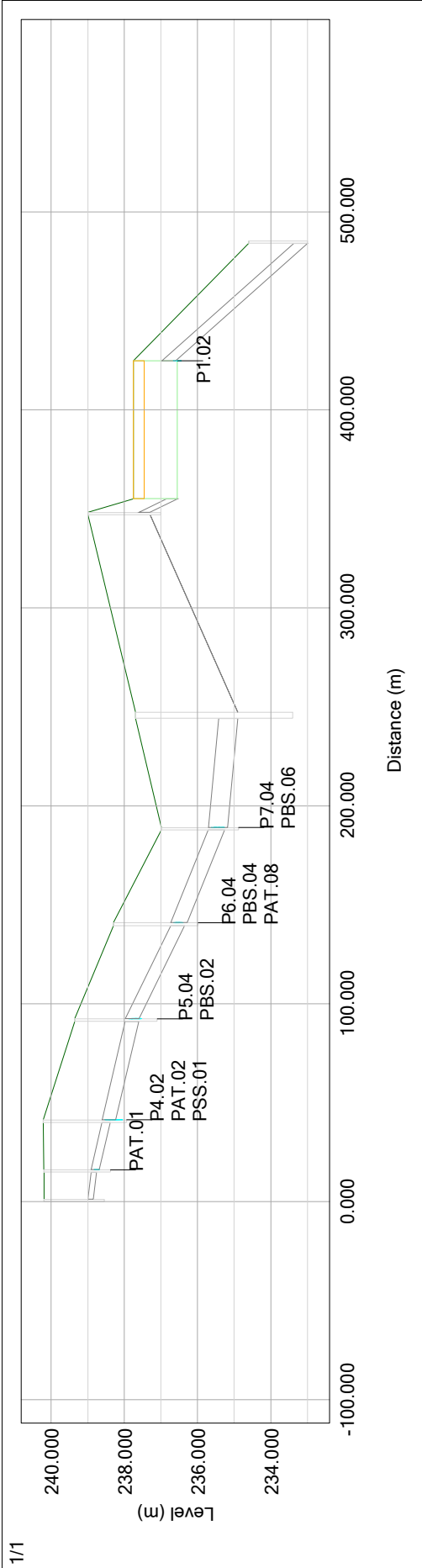
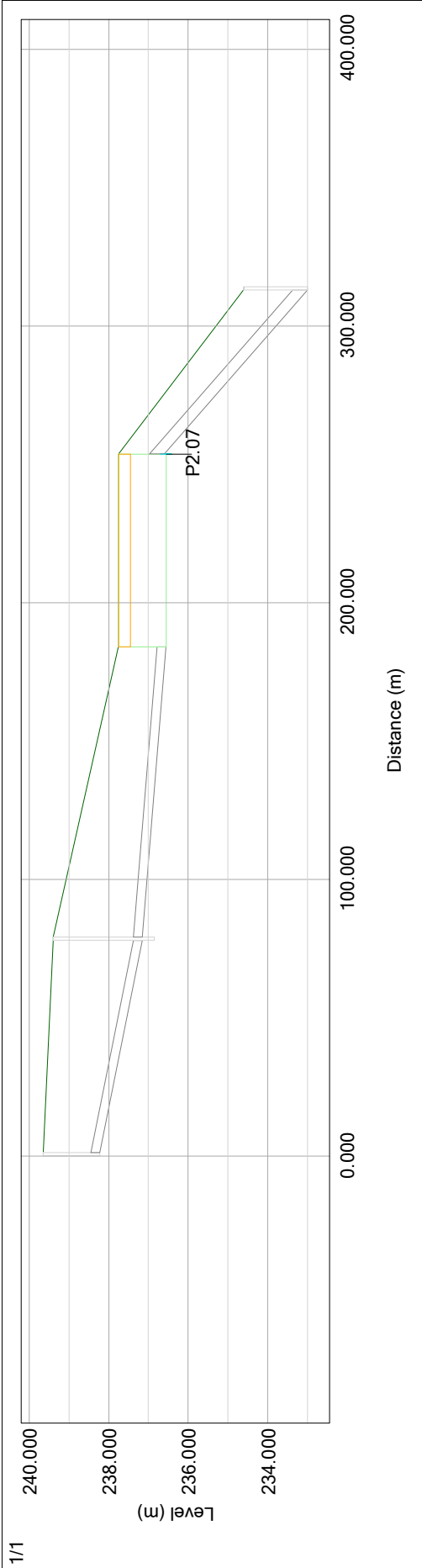


Project:		Company Address:	Page 2
Modified date 26/03/2024 File C&S_Energy_BESS_P10 - Option 2 - Revealled - For ...		Designed by LukeFalgate Checked by InfoDrainage 2025.4	
Profile - Road 2		Horizontal Scale 1:3097, Vertical Scale 1:173	



Junction		2.01	2.03	2.04	2.05	2.06	2.07	Manhole	Manhole	Outfall
Type	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole
CL (m)	240.200	240.220	239.360	238.300	236.980	237.691	239.000	239.000	234.606	
IL (m)	238.550	237.935	237.100	235.980	234.880	233.400	237.000	237.000	233.000	
Connection	P2.01	P2.03	P2.04	P2.05	P2.06	P2.07	P2.07	P2.07	P2.07	Outlet
	Pipe	Pipe	Pipe	Pipe	Pipe	Pipe	Pipe	Pipe	Pipe	Pipe
Curved	No	No	No	No	No	No	No	No	No	No
Length (m)	13.802	49.665	46.948	46.950	55.127	99.895	6.832	59.329	59.329	
Diam (mm)	150	375	375	450	525	0	300	375	375	
Height (mm)										
U/S IL (m)	238.850	238.235	237.600	236.280	235.180	234.900	237.300	236.600	236.600	
D/S IL (m)	238.760	237.600	236.355	235.255	234.900	237.300	236.550	233.000	233.000	
C. Splay (mm)										
SWC	Type							Pond	Pond	
	Type							Pond	Pond	
EL (m)								237.750	237.750	
BL (m)								236.550	236.550	

Page 3	
Project:	Company Address:
Modified date 26/03/2024 File C&S_Energy_BESS_P10 - Option 2 - Revelvelled - For ...	Designed by LukeFalgate Checked by InfoDrainage 2025.4
Profile - Road 1	Horizontal Scale 1:2216, Vertical Scale 1:160



Junction	1.01	1.02	Outfall
Type	Manhole	Manhole	Manhole
CL (m)	239.651	239.400	234.606
IL (m)	238.226	236.850	233.000
Connection	P1.01	P1.02	Outlet
Type	Pipe	Pipe	Pipe
Curved	No	No	No
Length (m)	76.660	104.897	59.329
Diam (mm)	225	225	375
Height (mm)			
U/S IL (m)	238.226	237.150	236.600
D/S IL (m)	237.150	236.550	233.000
C. Splay (mm)			
SWC			Pond
Type			Pond
EL (m)			237.750
BL (m)			236.550

JBA Consulting							Page 1
The Old School House St. Joseph's Street Tadcaster LS24 9HA							
Date 04/05/2024 15:38				Designed by willdorman			
File				Checked by			
Micro Drainage				Source Control 2020.1			
Summary of Results for 100 year Return Period (+40%)							
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Overflow (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	99.414	1.614	90.0	0.0	90.0	24.2	O K
30 min Summer	99.445	1.645	90.0	0.0	90.0	24.7	O K
60 min Summer	98.834	1.034	90.0	0.0	90.0	15.5	O K
120 min Summer	97.998	0.198	89.2	0.0	89.2	3.0	O K
180 min Summer	97.954	0.154	69.2	0.0	69.2	2.3	O K
240 min Summer	97.926	0.126	56.8	0.0	56.8	1.9	O K
360 min Summer	97.894	0.094	42.4	0.0	42.4	1.4	O K
480 min Summer	97.876	0.076	34.3	0.0	34.3	1.1	O K
600 min Summer	97.865	0.065	29.1	0.0	29.1	1.0	O K
720 min Summer	97.856	0.056	25.1	0.0	25.1	0.8	O K
960 min Summer	97.845	0.045	20.1	0.0	20.1	0.7	O K
1440 min Summer	97.833	0.033	14.7	0.0	14.7	0.5	O K
2160 min Summer	97.824	0.024	10.9	0.0	10.9	0.4	O K
2880 min Summer	97.819	0.019	8.7	0.0	8.7	0.3	O K
4320 min Summer	97.814	0.014	6.2	0.0	6.2	0.2	O K
5760 min Summer	97.811	0.011	5.1	0.0	5.1	0.2	O K
7200 min Summer	97.810	0.010	4.4	0.0	4.4	0.2	O K
8640 min Summer	97.808	0.008	3.7	0.0	3.7	0.2	O K
10080 min Summer	97.808	0.008	3.5	0.0	3.5	0.1	O K
15 min Winter	99.787	1.987	90.0	0.0	90.0	29.8	Flood Risk
30 min Winter	99.592	1.792	90.0	0.0	90.0	26.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)		
15 min Summer	123.676	0.0	85.8	0.0	14		
30 min Summer	82.540	0.0	114.5	0.0	22		
60 min Summer	52.595	0.0	146.0	0.0	38		
120 min Summer	32.409	0.0	179.9	0.0	64		
180 min Summer	24.086	0.0	200.5	0.0	94		
240 min Summer	19.390	0.0	215.2	0.0	124		
360 min Summer	14.188	0.0	236.3	0.0	184		
480 min Summer	11.374	0.0	252.5	0.0	244		
600 min Summer	9.574	0.0	265.7	0.0	306		
720 min Summer	8.312	0.0	276.8	0.0	366		
960 min Summer	6.646	0.0	295.1	0.0	482		
1440 min Summer	4.839	0.0	322.3	0.0	714		
2160 min Summer	3.517	0.0	351.4	0.0	1080		
2880 min Summer	2.801	0.0	373.2	0.0	1468		
4320 min Summer	2.029	0.0	405.7	0.0	2196		
5760 min Summer	1.612	0.0	429.1	0.0	2896		
7200 min Summer	1.348	0.0	448.0	0.0	3672		
8640 min Summer	1.164	0.0	464.0	0.0	4320		
10080 min Summer	1.028	0.0	477.0	0.0	5192		
15 min Winter	123.676	0.0	96.1	0.0	15		
30 min Winter	82.540	0.0	128.3	0.0	23		
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JBA Consulting						Page 2																																																																																																																																																																																																																																																													
The Old School House St. Joseph's Street Tadcaster LS24 9HA																																																																																																																																																																																																																																																																			
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Summary of Results for 100 year Return Period (+40%) <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Control (l/s)</th><th>Max Overflow (l/s)</th><th>Max Outflow (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>60 min Winter</td><td>98.474</td><td>0.674</td><td>90.0</td><td>0.0</td><td>90.0</td><td>10.1</td><td>O K</td></tr><tr><td>120 min Winter</td><td>97.954</td><td>0.154</td><td>69.4</td><td>0.0</td><td>69.4</td><td>2.3</td><td>O K</td></tr><tr><td>180 min Winter</td><td>97.916</td><td>0.116</td><td>52.3</td><td>0.0</td><td>52.3</td><td>1.7</td><td>O K</td></tr><tr><td>240 min Winter</td><td>97.894</td><td>0.094</td><td>42.2</td><td>0.0</td><td>42.2</td><td>1.4</td><td>O K</td></tr><tr><td>360 min Winter</td><td>97.869</td><td>0.069</td><td>31.2</td><td>0.0</td><td>31.2</td><td>1.0</td><td>O K</td></tr><tr><td>480 min Winter</td><td>97.855</td><td>0.055</td><td>24.9</td><td>0.0</td><td>24.9</td><td>0.8</td><td>O K</td></tr><tr><td>600 min Winter</td><td>97.847</td><td>0.047</td><td>21.0</td><td>0.0</td><td>21.0</td><td>0.7</td><td>O K</td></tr><tr><td>720 min Winter</td><td>97.840</td><td>0.040</td><td>18.1</td><td>0.0</td><td>18.1</td><td>0.6</td><td>O K</td></tr><tr><td>960 min Winter</td><td>97.832</td><td>0.032</td><td>14.5</td><td>0.0</td><td>14.5</td><td>0.5</td><td>O K</td></tr><tr><td>1440 min Winter</td><td>97.824</td><td>0.024</td><td>10.7</td><td>0.0</td><td>10.7</td><td>0.4</td><td>O K</td></tr><tr><td>2160 min Winter</td><td>97.817</td><td>0.017</td><td>7.8</td><td>0.0</td><td>7.8</td><td>0.3</td><td>O K</td></tr><tr><td>2880 min Winter</td><td>97.814</td><td>0.014</td><td>6.2</td><td>0.0</td><td>6.2</td><td>0.2</td><td>O K</td></tr><tr><td>4320 min Winter</td><td>97.810</td><td>0.010</td><td>4.6</td><td>0.0</td><td>4.6</td><td>0.2</td><td>O K</td></tr><tr><td>5760 min Winter</td><td>97.809</td><td>0.009</td><td>3.9</td><td>0.0</td><td>3.9</td><td>0.1</td><td>O K</td></tr><tr><td>7200 min Winter</td><td>97.807</td><td>0.007</td><td>3.0</td><td>0.0</td><td>3.0</td><td>0.1</td><td>O K</td></tr><tr><td>8640 min Winter</td><td>97.806</td><td>0.006</td><td>2.8</td><td>0.0</td><td>2.8</td><td>0.1</td><td>O K</td></tr><tr><td>10080 min Winter</td><td>97.806</td><td>0.006</td><td>2.6</td><td>0.0</td><td>2.6</td><td>0.1</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Discharge Volume (m³)</th><th>Overflow Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>60 min Winter</td><td>52.595</td><td>0.0</td><td>163.5</td><td>0.0</td><td>38</td></tr><tr><td>120 min Winter</td><td>32.409</td><td>0.0</td><td>201.5</td><td>0.0</td><td>64</td></tr><tr><td>180 min Winter</td><td>24.086</td><td>0.0</td><td>224.6</td><td>0.0</td><td>94</td></tr><tr><td>240 min Winter</td><td>19.390</td><td>0.0</td><td>241.0</td><td>0.0</td><td>124</td></tr><tr><td>360 min Winter</td><td>14.188</td><td>0.0</td><td>264.6</td><td>0.0</td><td>182</td></tr><tr><td>480 min Winter</td><td>11.374</td><td>0.0</td><td>282.8</td><td>0.0</td><td>244</td></tr><tr><td>600 min Winter</td><td>9.574</td><td>0.0</td><td>297.5</td><td>0.0</td><td>300</td></tr><tr><td>720 min Winter</td><td>8.312</td><td>0.0</td><td>310.0</td><td>0.0</td><td>368</td></tr><tr><td>960 min Winter</td><td>6.646</td><td>0.0</td><td>330.5</td><td>0.0</td><td>476</td></tr><tr><td>1440 min Winter</td><td>4.839</td><td>0.0</td><td>361.0</td><td>0.0</td><td>734</td></tr><tr><td>2160 min Winter</td><td>3.517</td><td>0.0</td><td>393.5</td><td>0.0</td><td>1092</td></tr><tr><td>2880 min Winter</td><td>2.801</td><td>0.0</td><td>418.0</td><td>0.0</td><td>1468</td></tr><tr><td>4320 min Winter</td><td>2.029</td><td>0.0</td><td>454.1</td><td>0.0</td><td>2136</td></tr><tr><td>5760 min Winter</td><td>1.612</td><td>0.0</td><td>482.1</td><td>0.0</td><td>2872</td></tr><tr><td>7200 min Winter</td><td>1.348</td><td>0.0</td><td>502.6</td><td>0.0</td><td>3328</td></tr><tr><td>8640 min Winter</td><td>1.164</td><td>0.0</td><td>521.2</td><td>0.0</td><td>4496</td></tr><tr><td>10080 min Winter</td><td>1.028</td><td>0.0</td><td>536.7</td><td>0.0</td><td>4760</td></tr></table>								Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Overflow (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status	60 min Winter	98.474	0.674	90.0	0.0	90.0	10.1	O K	120 min Winter	97.954	0.154	69.4	0.0	69.4	2.3	O K	180 min Winter	97.916	0.116	52.3	0.0	52.3	1.7	O K	240 min Winter	97.894	0.094	42.2	0.0	42.2	1.4	O K	360 min Winter	97.869	0.069	31.2	0.0	31.2	1.0	O K	480 min Winter	97.855	0.055	24.9	0.0	24.9	0.8	O K	600 min Winter	97.847	0.047	21.0	0.0	21.0	0.7	O K	720 min Winter	97.840	0.040	18.1	0.0	18.1	0.6	O K	960 min Winter	97.832	0.032	14.5	0.0	14.5	0.5	O K	1440 min Winter	97.824	0.024	10.7	0.0	10.7	0.4	O K	2160 min Winter	97.817	0.017	7.8	0.0	7.8	0.3	O K	2880 min Winter	97.814	0.014	6.2	0.0	6.2	0.2	O K	4320 min Winter	97.810	0.010	4.6	0.0	4.6	0.2	O K	5760 min Winter	97.809	0.009	3.9	0.0	3.9	0.1	O K	7200 min Winter	97.807	0.007	3.0	0.0	3.0	0.1	O K	8640 min Winter	97.806	0.006	2.8	0.0	2.8	0.1	O K	10080 min Winter	97.806	0.006	2.6	0.0	2.6	0.1	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)	60 min Winter	52.595	0.0	163.5	0.0	38	120 min Winter	32.409	0.0	201.5	0.0	64	180 min Winter	24.086	0.0	224.6	0.0	94	240 min Winter	19.390	0.0	241.0	0.0	124	360 min Winter	14.188	0.0	264.6	0.0	182	480 min Winter	11.374	0.0	282.8	0.0	244	600 min Winter	9.574	0.0	297.5	0.0	300	720 min Winter	8.312	0.0	310.0	0.0	368	960 min Winter	6.646	0.0	330.5	0.0	476	1440 min Winter	4.839	0.0	361.0	0.0	734	2160 min Winter	3.517	0.0	393.5	0.0	1092	2880 min Winter	2.801	0.0	418.0	0.0	1468	4320 min Winter	2.029	0.0	454.1	0.0	2136	5760 min Winter	1.612	0.0	482.1	0.0	2872	7200 min Winter	1.348	0.0	502.6	0.0	3328	8640 min Winter	1.164	0.0	521.2	0.0	4496	10080 min Winter	1.028	0.0	536.7	0.0	4760
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Overflow (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																																																												
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JBA Consulting		Page 3																																										
The Old School House St. Joseph's Street Tadcaster LS24 9HA																																												
Date 04/05/2024 15:38 File	Designed by willdorman Checked by																																											
Micro Drainage		Source Control 2020.1																																										
Rainfall Details <table><tr><td>Rainfall Model</td><td>FSR</td><td>Winter Storms</td><td>Yes</td></tr><tr><td>Return Period (years)</td><td>100</td><td>Cv (Summer)</td><td>0.750</td></tr><tr><td>Region</td><td>England and Wales</td><td>Cv (Winter)</td><td>0.840</td></tr><tr><td>M5-60 (mm)</td><td>18.600</td><td>Shortest Storm (mins)</td><td>15</td></tr><tr><td>Ratio R</td><td>0.366</td><td>Longest Storm (mins)</td><td>10080</td></tr><tr><td>Summer Storms</td><td>Yes</td><td>Climate Change %</td><td>+40</td></tr></table> Time Area Diagram Total Area (ha) 0.370 <table><thead><tr><th colspan="3">Time (mins) Area</th><th colspan="3">Time (mins) Area</th></tr><tr><th>From:</th><th>To:</th><th>(ha)</th><th>From:</th><th>To:</th><th>(ha)</th></tr></thead><tbody><tr><td>0</td><td>4</td><td>0.270</td><td>4</td><td>8</td><td>0.100</td></tr></tbody></table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	18.600	Shortest Storm (mins)	15	Ratio R	0.366	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+40	Time (mins) Area			Time (mins) Area			From:	To:	(ha)	From:	To:	(ha)	0	4	0.270	4	8	0.100
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